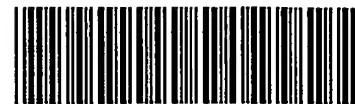


RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/550,280
Source: PCT
Date Processed by STIC: 10/06/2005

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PCT

RAW SEQUENCE LISTING

DATE: 10/06/2005

PATENT APPLICATION: US/10/550,280

TIME: 11:41:37

Input Set : A:\Sequence Listing 2005_1500A.txt

Output Set: N:\CRF4\10062005\J550280.raw

3 <110> APPLICANT: NIPPON MEDICAL SCHOOL FOUNDATION
 5 <120> TITLE OF INVENTION: Cell death-inducing fusion gene specifically acting on
 cancer and
 6 gene product thereof
 8 <130> FILE REFERENCE: PH-2011-PCT
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/550,280
 C--> 11 <141> CURRENT FILING DATE: 2005-09-23
 13 <150> PRIOR APPLICATION NUMBER: JP2003/081337
 14 <151> PRIOR FILING DATE: 2003-03-24
 16 <160> NUMBER OF SEQ ID NOS: 27
 17 <170> SOFTWARE: PatentIn Ver. 2.1
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 579
 21 <212> TYPE: DNA
 22 <213> ORGANISM: Homo sapiens
 24 <220> FEATURE:
 25 <221> NAME/KEY: CDS
 26 <222> LOCATION: (1)..(579)
 28 <400> SEQUENCE: 1

(CPg-6)

29	atg gac ggg tcc ggg gag cag ccc aga ggc ggg ggg ccc acc agc tct	48
30	Met Asp Gly Ser Gly Glu Gln Pro Arg Gly Gly Gly Pro Thr Ser Ser	
31	1 5 10 15	
33	gag cag atc atg aag aca ggg gcc ctt ttg ctt cag ggt ttc atc cag	96
34	Glu Gln Ile Met Lys Thr Gly Ala Leu Leu Leu Gln Gly Phe Ile Gln	
35	20 25 30	
37	gat cga gca ggg cga atg ggg ggg gag gca ccc gag ctg gcc ctg gac	144
38	Asp Arg Ala Gly Arg Met Gly Gly Glu Ala Pro Glu Leu Ala Leu Asp	
39	35 40 45	
41	ccg gtg cct cag gat gcg tcc acc aag aag ctg agc gag tgt ctc aag	192
42	Pro Val Pro Gln Asp Ala Ser Thr Lys Lys Leu Ser Glu Cys Leu Lys	
43	50 55 60	
45	cgc atc ggg gac gaa ctg gac agt aac atg gag ctg cag agg atg att	240
46	Arg Ile Gly Asp Glu Leu Asp Ser Asn Met Glu Leu Gln Arg Met Ile	
47	65 70 75 80	
49	gcc gcc gtg gac aca gac tcc ccc cga gag gtc ttt ttc cga gtg gca	288
50	Ala Ala Val Asp Thr Asp Ser Pro Arg Glu Val Phe Phe Arg Val Ala	
51	85 90 95	
53	gct gac atg ttt tct gac ggc aac ttc aac tgg ggc cgg gtt gtc gcc	336
54	Ala Asp Met Phe Ser Asp Gly Asn Phe Asn Trp Gly Arg Val Val Ala	
55	100 105 110	
57	ctt ttc tac ttt gcc agc aaa ctg gtg ctc aag gcc ctg tgc acc aag	384
58	Leu Phe Tyr Phe Ala Ser Lys Leu Val Leu Lys Ala Leu Cys Thr Lys	
59	115 120 125	
61	gtg ccg gaa ctg atc aga acc atc atg ggc tgg aca ttg gac ttc ctc	432

RAW SEQUENCE LISTING

DATE: 10/06/2005

PATENT APPLICATION: US/10/550,280

TIME: 11:41:37

Input Set : A:\Sequence Listing 2005_1500A.txt

Output Set: N:\CRF4\10062005\J550280.raw

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62 Val Pro Glu Leu Ile Arg Thr Ile Met Gly Trp Thr Leu Asp Phe Leu
63      130                      135                      140
65 cgg gag cgg ctg ttg ggc tgg atc caa gac cag ggt ggt tgg gac ggc      480
66 Arg Glu Arg Leu Leu Gly Trp Ile Gln Asp Gln Gly Gly Trp Asp Gly
67 145                      150                      155                      160
69 ctc ctc tcc tac ttt ggg acg ccc acg tgg cag acc gtg acc atc ttt      528
70 Leu Leu Ser Tyr Phe Gly Thr Pro Thr Trp Gln Thr Val Thr Ile Phe
71                      165                      170                      175
73 gtg gcg gga gtg ctc acc gcc tcg ctc acc atc tgg aag aag atg ggc      576
74 Val Ala Gly Val Leu Thr Ala Ser Leu Thr Ile Trp Lys Lys Met Gly
75                      180                      185                      190
77 tga                                                                    579
80 <210> SEQ ID NO: 2
81 <211> LENGTH: 192
82 <212> TYPE: PRT
83 <213> ORGANISM: Homo sapiens
85 <400> SEQUENCE: 2
86 Met Asp Gly Ser Gly Glu Gln Pro Arg Gly Gly Gly Pro Thr Ser Ser
87 1      5      10      15
88 Glu Gln Ile Met Lys Thr Gly Ala Leu Leu Gln Gly Phe Ile Gln
89      20      25      30
90 Asp Arg Ala Gly Arg Met Gly Gly Glu Ala Pro Glu Leu Ala Leu Asp
91      35      40      45
92 Pro Val Pro Gln Asp Ala Ser Thr Lys Lys Leu Ser Glu Cys Leu Lys
93      50      55      60
94 Arg Ile Gly Asp Glu Leu Asp Ser Asn Met Glu Leu Gln Arg Met Ile .
95 65      70      75      80
96 Ala Ala Val Asp Thr Asp Ser Pro Arg Glu Val Phe Phe Arg Val Ala
97      85      90      95
98 Ala Asp Met Phe Ser Asp Gly Asn Phe Asn Trp Gly Arg Val Val Ala
99      100     105     110
100 Leu Phe Tyr Phe Ala Ser Lys Leu Val Leu Lys Ala Leu Cys Thr Lys
101      115     120     125
102 Val Pro Glu Leu Ile Arg Thr Ile Met Gly Trp Thr Leu Asp Phe Leu
103      130     135     140
104 Arg Glu Arg Leu Leu Gly Trp Ile Gln Asp Gln Gly Gly Trp Asp Gly
105 145     150     155     160
106 Leu Leu Ser Tyr Phe Gly Thr Pro Thr Trp Gln Thr Val Thr Ile Phe
107      165     170     175
108 Val Ala Gly Val Leu Thr Ala Ser Leu Thr Ile Trp Lys Lys Met Gly
109      180     185     190
113 <210> SEQ ID NO: 3
114 <211> LENGTH: 999
115 <212> TYPE: DNA
116 <213> ORGANISM: Homo sapiens
118 <220> FEATURE:
119 <221> NAME/KEY: CDS
120 <222> LOCATION: (1)..(999)
122 <400> SEQUENCE: 3

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RAW SEQUENCE LISTING

DATE: 10/06/2005

PATENT APPLICATION: US/10/550,280

TIME: 11:41:37

Input Set : A:\Sequence Listing 2005_1500A.txt

Output Set: N:\CRF4\10062005\J550280.raw

123	atg	gcc	tgc	gat	tgc	cgt	ggt	gat	tgt	ttt	tgt	ggt	ggt	atg	agc	aag	48
124	Met	Ala	Cys	Asp	Cys	Arg	Gly	Asp	Cys	Phe	Cys	Gly	Gly	Met	Ser	Lys	
125	1				5				10					15			
127	ggc	gag	gaa	ctg	ttc	act	ggc	gtg	gtc	cca	att	ctc	gtg	gaa	ctg	gat	96
128	Gly	Glu	Glu	Leu	Phe	Thr	Gly	Val	Val	Pro	Ile	Leu	Val	Glu	Leu	Asp	
129				20				25					30				
131	ggc	gat	gtg	aat	ggg	cac	aaa	ttt	tct	gtc	agc	gga	gag	ggt	gaa	ggt	144
132	Gly	Asp	Val	Asn	Gly	His	Lys	Phe	Ser	Val	Ser	Gly	Glu	Gly	Glu	Gly	
133			35					40					45				
135	gat	gcc	aca	tac	gga	aag	ctc	acc	ctg	aaa	ttc	atc	tgc	acc	act	gga	192
136	Asp	Ala	Thr	Tyr	Gly	Lys	Leu	Thr	Leu	Lys	Phe	Ile	Cys	Thr	Thr	Gly	
137		50					55					60					
139	aag	ctc	cct	gtg	cca	tgg	cca	aca	ctg	gtc	act	acc	ttc	acc	tat	ggc	240
140	Lys	Leu	Pro	Val	Pro	Trp	Pro	Thr	Leu	Val	Thr	Thr	Phe	Thr	Tyr	Gly	
141	65					70				75					80		
143	gtg	cag	tgc	ttt	tcc	aga	tac	cca	gac	cat	atg	aag	cag	cat	gac	ttt	288
144	Val	Gln	Cys	Phe	Ser	Arg	Tyr	Pro	Asp	His	Met	Lys	Gln	His	Asp	Phe	
145				85					90					95			
147	ttc	aag	agc	gcc	atg	ccc	gag	ggc	tat	gtg	cag	gag	aga	acc	atc	ttt	336
148	Phe	Lys	Ser	Ala	Met	Pro	Glu	Gly	Tyr	Val	Gln	Glu	Arg	Thr	Ile	Phe	
149			100					105					110				
151	ttc	aaa	gat	gac	ggg	aac	tac	aag	acc	cgc	gct	gaa	gtc	aag	ttc	gaa	384
152	Phe	Lys	Asp	Asp	Gly	Asn	Tyr	Lys	Thr	Arg	Ala	Glu	Val	Lys	Phe	Glu	
153			115					120					125				
155	ggt	gac	acc	ctg	gtg	aat	aga	atc	gag	ctg	aag	ggc	att	gac	ttt	aag	432
156	Gly	Asp	Thr	Leu	Val	Asn	Arg	Ile	Glu	Leu	Lys	Gly	Ile	Asp	Phe	Lys	
157		130					135					140					
159	gag	gat	gga	aac	att	ctc	ggc	cac	aag	ctg	gaa	tac	aac	tat	aac	tcc	480
160	Glu	Asp	Gly	Asn	Ile	Leu	Gly	His	Lys	Leu	Glu	Tyr	Asn	Tyr	Asn	Ser	
161	145					150					155				160		
163	cac	aat	gtg	tac	atc	atg	gcc	gac	aag	caa	aag	aat	ggc	atc	aag	gtc	528
164	His	Asn	Val	Tyr	Ile	Met	Ala	Asp	Lys	Gln	Lys	Asn	Gly	Ile	Lys	Val	
165				165					170					175			
167	aac	ttc	aag	atc	aga	cac	aac	att	gag	gat	gga	tcc	gtg	cag	ctg	gcc	576
168	Asn	Phe	Lys	Ile	Arg	His	Asn	Ile	Glu	Asp	Gly	Ser	Val	Gln	Leu	Ala	
169			180						185				190				
171	gac	cat	tat	caa	cag	aac	act	cca	atc	ggc	gac	ggc	cct	gtg	ctc	ctc	624
172	Asp	His	Tyr	Gln	Gln	Asn	Thr	Pro	Ile	Gly	Asp	Gly	Pro	Val	Leu	Leu	
173			195					200					205				
175	cca	gac	aac	cat	tac	ctg	tcc	acc	cag	tct	gcc	ctg	tct	aaa	gat	ccc	672
176	Pro	Asp	Asn	His	Tyr	Leu	Ser	Thr	Gln	Ser	Ala	Leu	Ser	Lys	Asp	Pro	
177		210					215					220					
179	aac	gaa	aag	aga	gac	cac	atg	gtc	ctg	ctg	gag	ttt	gtg	acc	gct	gct	720
180	Asn	Glu	Lys	Arg	Asp	His	Met	Val	Leu	Leu	Glu	Phe	Val	Thr	Ala	Ala	
181	225					230					235				240		
183	ggg	atc	aca	cat	ggc	atg	gac	gag	ctg	tac	aag	gcc	ctt	ttc	tac	ttt	768
184	Gly	Ile	Thr	His	Gly	Met	Asp	Glu	Leu	Tyr	Lys	Ala	Leu	Phe	Tyr	Phe	
185				245					250				255				
187	gcc	agc	aaa	ctg	gtg	ctc	aag	gcc	ctg	tgc	acc	aag	gtg	ccg	gaa	ctg	816

RAW SEQUENCE LISTING

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PATENT APPLICATION: US/10/550,280

TIME: 11:41:37

Input Set : A:\Sequence Listing 2005_1500A.txt

Output Set: N:\CRF4\10062005\J550280.raw

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188 Ala Ser Lys Leu Val Leu Lys Ala Leu Cys Thr Lys Val Pro Glu Leu
189          260          265          270
190 atc aga acc atc atg ggc tgg aca ttg gac ttc ctc cgg gag cgg ctg      864
191 Ile Arg Thr Ile Met Gly Trp Thr Leu Asp Phe Leu Arg Glu Arg Leu
192          275          280          285
194 ttg ggc tgg atc caa gac cag ggt ggt tgg gac ggc ctc ctc tcc tac      912
195 Leu Gly Trp Ile Gln Asp Gln Gly Gly Trp Asp Gly Leu Leu Ser Tyr
196          290          295          300
198 ttt ggg acg ccc acg tgg cag acc gtg acc atc ttt gtg gcg gga gtg      960
199 Phe Gly Thr Pro Thr Trp Gln Thr Val Thr Ile Phe Val Ala Gly Val
200 305          310          315          320
202 ctc acc gcc tca ctc acc atc tgg aag aag atg ggc tga      999
203 Leu Thr Ala Ser Leu Thr Ile Trp Lys Lys Met Gly
204          325          330
207 <210> SEQ ID NO: 4
208 <211> LENGTH: 332
209 <212> TYPE: PRT
210 <213> ORGANISM: Homo sapiens
212 <400> SEQUENCE: 4
213 Met Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys Gly Gly Met Ser Lys
214 1          5          10          15
215 Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val Glu Leu Asp
216          20          25          30
217 Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu Gly Glu Gly
218          35          40          45
219 Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys Thr Thr Gly
220          50          55          60
221 Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe Thr Tyr Gly
222 65          70          75          80
223 Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln His Asp Phe
224          85          90          95
225 Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg Thr Ile Phe
226          100          105          110
227 Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val Lys Phe Glu
228          115          120          125
229 Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile Asp Phe Lys
230          130          135          140
231 Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn Tyr Asn Ser
232 145          150          155          160
233 His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly Ile Lys Val
234          165          170          175
235 Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val Gln Leu Ala
236          180          185          190
237 Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro Val Leu Leu
238          195          200          205
239 Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser Lys Asp Pro
240          210          215          220
241 Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val Thr Ala Ala
242 225          230          235          240

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RAW SEQUENCE LISTING

DATE: 10/06/2005

PATENT APPLICATION: US/10/550,280

TIME: 11:41:37

Input Set : A:\Sequence Listing 2005_1500A.txt

Output Set: N:\CRF4\10062005\J550280.raw

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243 Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys Ala Leu Phe Tyr Phe
244                               245                               250                               255
245 Ala Ser Lys Leu Val Leu Lys Ala Leu Cys Thr Lys Val Pro Glu Leu
246                               260                               265                               270
247 Ile Arg Thr Ile Met Gly Trp Thr Leu Asp Phe Leu Arg Glu Arg Leu
248                               275                               280                               285
249 Leu Gly Trp Ile Gln Asp Gln Gly Gly Trp Asp Gly Leu Leu Ser Tyr
250                               290                               295                               300
251 Phe Gly Thr Pro Thr Trp Gln Thr Val Thr Ile Phe Val Ala Gly Val
252 305                               310                               315                               320
253 Leu Thr Ala Ser Leu Thr Ile Trp Lys Lys Met Gly
254                               325                               330
258 <210> SEQ ID NO: 5
259 <211> LENGTH: 987
260 <212> TYPE: DNA
261 <213> ORGANISM: Homo sapiens
263 <220> FEATURE:
264 <221> NAME/KEY: CDS
265 <222> LOCATION: (1)..(987)
267 <400> SEQUENCE: 5
268 atg gcc tgc aac ggt cgt tgc ggt ggt atg agc aag ggc gag gaa ctg 48
269 Met Ala Cys Asn Gly Arg Cys Gly Gly Met Ser Lys Gly Glu Glu Leu
270 1 5 10 15
272 ttc act ggc gtg gtc cca att ctc gtg gaa ctg gat ggc gat gtg aat 96
273 Phe Thr Gly Val Val Pro Ile Leu Val Glu Leu Asp Gly Asp Val Asn
274 20 25 30
275 ggg cac aaa ttt tct gtc agc gga gag ggt gaa ggt gat gcc aca tac 144
276 Gly His Lys Phe Ser Val Ser Gly Glu Gly Glu Gly Asp Ala Thr Tyr
277 35 40 45
279 gga aag ctc acc ctg aaa ttc atc tgc acc act gga aag ctc cct gtg 192
280 Gly Lys Leu Thr Leu Lys Phe Ile Cys Thr Thr Gly Lys Leu Pro Val
281 50 55 60
283 cca tgg cca aca ctg gtc act acc ttc acc tat ggc gtg cag tgc ttt 240
284 Pro Trp Pro Thr Leu Val Thr Thr Phe Thr Tyr Gly Val Gln Cys Phe
285 65 70 75 80
287 tcc aga tac cca gac cat atg aag cag cat gac ttt ttc aag agc gcc 288
288 Ser Arg Tyr Pro Asp His Met Lys Gln His Asp Phe Phe Lys Ser Ala
289 85 90 95
291 atg ccc gag ggc tat gtg cag gag aga acc atc ttt ttc aaa gat gac 336
292 Met Pro Glu Gly Tyr Val Gln Glu Arg Thr Ile Phe Phe Lys Asp Asp
293 100 105 110
295 ggg aac tac aag acc cgc gct gaa gtc aag ttc gaa ggt gac acc ctg 384
296 Gly Asn Tyr Lys Thr Arg Ala Glu Val Lys Phe Glu Gly Asp Thr Leu
297 115 120 125
299 gtg aat aga atc gag ctg aag ggc att gac ttt aag gag gat gga aac 432
300 Val Asn Arg Ile Glu Leu Lys Gly Ile Asp Phe Lys Glu Asp Gly Asn
301 130 135 140
303 att ctc ggc cac aag ctg gaa tac aac tat aac tcc cac aat gtg tac 480
304 Ile Leu Gly His Lys Leu Glu Tyr Asn Tyr Asn Ser His Asn Val Tyr

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/550,280

DATE: 10/06/2005
TIME: 11:41:38

Input Set : A:\Sequence Listing 2005_1500A.txt
Output Set: N:\CRF4\10062005\J550280.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:19; N Pos. 1,2

Seq#:22; N Pos. 1,2

Seq#:24; N Pos. 1,2,3,4

Seq#:27; N Pos. 1,2,3,4

VERIFICATION SUMMARY

DATE: 10/06/2005

PATENT APPLICATION: US/10/550,280

TIME: 11:41:38

Input Set : A:\Sequence Listing 2005_1500A.txt

Output Set: N:\CRF4\10062005\J550280.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:420 M:283 W: Missing Blank Line separator, <220> field identifier
L:448 M:283 W: Missing Blank Line separator, <400> field identifier
L:476 M:283 W: Missing Blank Line separator, <400> field identifier
L:571 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:609 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:636 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:667 M:283 W: Missing Blank Line separator, <220> field identifier
L:673 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0